

PRODUCT SUMMARY

SKY77198-12 Power Amplifier Module for TD-SCDMA (1880–1920 MHz, 2010-2025 MHz)

Applications

- TD-SCDMA handsets

Features

- Low voltage positive bias supply
 - 3.2 V to 4.2 V
- Supports low collector voltage operation
- Good linearity
- High efficiency
 - 39% @ 28 dBm
- Large dynamic range
- Small, low profile package
 - 3 mm x 3 mm 0.85 mm
 - 10-pad configuration
- Power-down control
- Low power-state control
- InGaP
- CMOS Compatible Control
- Integrated Directional Coupler

Description

The SKY77198-12 Power Amplifier Module (PAM) is a fully matched, 10-pad, surface mount module developed for Time Division Synchronous Code Division Multiple Access (TD-SCDMA) applications. Skyworks' SKY77198-12 also supports TD-SCDMA multi-slot operation.

This small and efficient module packs full 1880–1920 MHz and 2010-2025 MHz bandwidth coverage into a single compact package. The PAM meets the stringent spectral linearity requirements of TD-SCDMA transmission, with high power added efficiency for power output of up to 28 dBm.

A single Gallium Arsenide (GaAs) Microwave Monolithic Integrated Circuit (MMIC) contains all active circuitry in the module such as on-board bias circuit and input and interstage matching circuits. Output match is realized off-chip within the module package to optimize efficiency and power performance into a 50 Ω load.

The SKY77198-12 is manufactured with Skyworks' InGaP GaAs Heterojunction Bipolar Transistor (HBT) BiFET process that provides for all positive voltage DC supply operation while maintaining high efficiency and good linearity.

Power-down is accomplished by setting the voltage on VENABLE to zero volts. No external supply side switch is needed as typical "off" leakage is a few microamperes with full primary voltage supplied from the battery.

NEW Skyworks Green™ products are RoHS (Restriction of Hazardous Substances)-compliant, conform to the EIA/EICTA/JEITA Joint Industry Guide (JIG) Level A guidelines, are halogen free according to IEC-61249-2-21, and contain < 1,000 ppm antimony trioxide in polymeric materials.

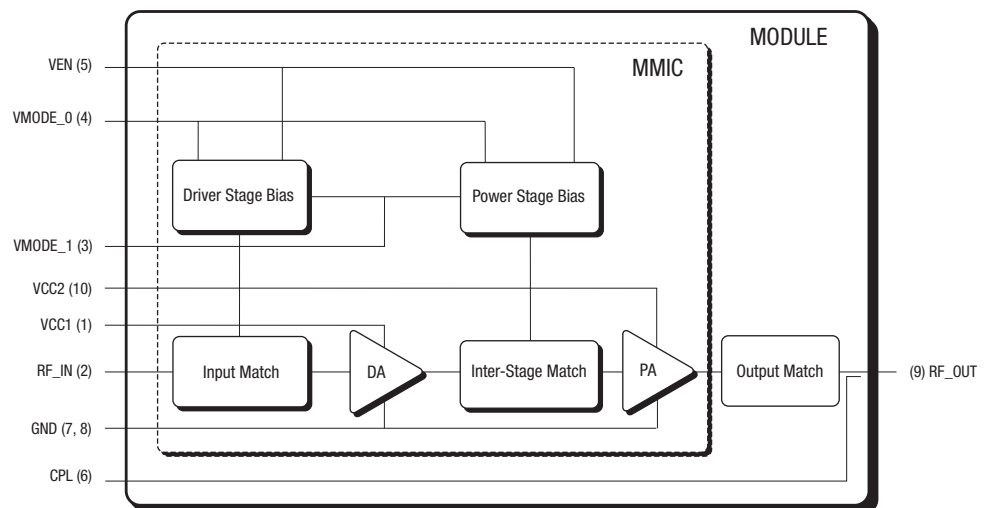



Figure 1. SKY77198-12 Functional Block Diagram

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